



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,893	02/24/2004	Jan Jaap Kuit	081468-0308381	9997
909	7590	06/02/2006	EXAMINER	
PILLSBURY WINTHROP SHAW PITTMAN, LLP			MATHEWS, ALAN A	
P.O. BOX 10500			ART UNIT	
MCLEAN, VA 22102			PAPER NUMBER	
			2851	

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

A

<b>Office Action Summary</b>	<b>Application No.</b> 10/784,893	<b>Applicant(s)</b> KUIT, JAN JAAP	
	<b>Examiner</b> Alan A. Mathews	<b>Art Unit</b> 2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-13 and 15-24 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 28, 2006, has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

### ***Claim Rejections - 35 USC § 103***

3. Claims 1, 3, 5 - 11, 13, 15, and 17 - 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al. (U. S. Patent No. 5,963,753) in view of Imai (U. S. Patent No. 6,737,207). Ohtani et al. discloses in figure 4 a lithographic exposure apparatus 2a and a track comprising processing devices 10a (three devices 10 a being shown in figure 4). The lithographic exposure apparatus 2a and the track (including the three processing devices 10a) are

Art Unit: 2851

side by side along their respective long sides. A transport system 32 (with path 31) is outside the lithographic exposure apparatus 32 and outside the track. The transport system 32 (with path 31) extends along a short side of the track that comprises the three processing devices 10a. It is noted that the last line of claims 1 and 15 use the expression “or”. With respect to claim 5, element 32 is a robot. With respect to claim 6, element 2b is a second lithographic exposure apparatus (thus forming a plurality of lithographic exposure apparatuses). With respect to claim 7, elements 10b comprise a second track. With respect to claim 11, figure 5 discloses guide rails 40 (see column 5, lines 60-67, and column 6, lines 1 and 2). With respect to claim 13, figure 5 discloses a belt 39. With respect to claim 24, element 20 in figure 4 could be considered to be an automated material handling system. In addition, figure 6 and column 7, lines 60-67, and column 8, lines 1 – 67, and column 9, lines 1-47, disclose additional transport mechanisms that could be considered an automated material handling system. Thus Ohtani et al. discloses the invention except for specifically disclosing the well-known details of the stepper in the lithographic exposure apparatus 2a. Imai discloses in figures 1 and 2, the well-known details of a stepper (exposure apparatus) 50. The stepper 50 has a track 52 to transport the wafer W1 to one or more processing devices 54-59. Imai discloses in figures 1, 2, and column 11, lines 11-67, and columns 12 and 13, an illuminator including elements 1, 2, and 3, a support structure 31 to hold a patterning device (reticule) R, and a substrate table 39 to hold a substrate W. Element PL is the projection system. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide Ohtani et al. with a stepper that has an illuminator, a support structure configured to hold a patterning device, a substrate table, and a projection

Art Unit: 2851

system in view of Imai for the purpose of providing a complete system and thus improving efficiency.

4. Claims 2 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al. (U. S. Patent No. 5,963,753) in view of Imai (U. S. Patent No. 6,737,207) as applied to claims 1 and 15 above, and further in view of WU (U. S. Patent No. 5,399,531). The modified device of Ohtani et al. and Imai disclose the invention except for the transport system comprising its own minienvironment. Wu discloses in the Abstract and column 5, lines 42-44, branched tunnels for wafer transportation with a controlled environment for the work stations 20 and means for maintaining a clean environment in the branched tunnel. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to the modified device of Ohtani et al. and Imai with a transport system having its own minienvironment in view of Wu for the purpose of reducing defects and thus producing a better final product.

5. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtani et al. (U. S. Patent No. 5,963,753) in view of Imai (U. S. Patent No. 6,737,207) as applied to claims 1 and 11 above, and further in view of Hirata et al. (U. S. Patent No. 6,604,624). The modified device of Ohtani et al. and Imai disclose the invention except for the linear guide being one of a roller bearing guide and a gas-bearing guide. Hirata et al. discloses in figures 4 and 7 and column 9, lines 63-67, a roller bearing 42a and 42b for a guide rail for transporting semiconductor devices. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the modified device of Ohtani et al. and Imai

Art Unit: 2851

with a roller bearing in view of Hirata et al. for the purpose of easier transportation of the substrates.

*Allowable Subject Matter*

6. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The reason for the indicated allowability of claim 4 is as follows:

The prior art does not disclose or suggest a transport system comprising at least two transporter pathways, one configured to transport the substrate from the track to the lithographic apparatus and one configured to transport the substrate from the lithographic apparatus to the track in combination with all the other elements recited in independent claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan A. Mathews whose telephone number is (571) 272-2123. The examiner can normally be reached on Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Alan A. Mathews  
Primary Examiner  
Art Unit 2851

AM